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JVC
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TITLE

Electrostatic Switched Radiator For Space Based Thermal
Control

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FIELD OF THE INVENTION

The present invention relates to an improved device for
controlling the effective emissivity of a surface by use of
electrostatic attraction, which controls the thermal
conductivity.

BACKGROUND OF THE INVENTION

Control of solar absorption and/or thermal
emissivity is important for temperature control involving
systems where radiation is the major heat control mechanism.
Control of black body radiation and solar absorption, using
a spectrally selective coating, will help control the
temperature. But, when the heat load varies, active control
of the thermal radiation is needed. Coolants have been used
to conduct heat to an external radiator and can be
controlled to block, or to be open, to piping. Louvers are
another alternative that can be used to open or close. With
a louver in one position, the exposed surface will have a
high emissivity; alternately when the louvers is in the